

RAW SEQUENCE LISTING

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Application Serial Number: 10/526,538
Source: PT/10
Date Processed by STIC: 3/13/05

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PCT

RAW SEQUENCE LISTING

DATE: 03/13/2005

PATENT APPLICATION: US/10/526,538

TIME: 12:10:58

Input Set : A:\AsFiled.ST25.txt

Output Set: N:\CRF4\03132005\J526538.raw

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3 <110> APPLICANT: University of South Florida
4     Sanchez-Ramos, Juan
5     Song, Shijie
6     Sanberg, Paul
7     Kamath, Siddharth
9 <120> TITLE OF INVENTION: Cellular Delivery of Natriuretic Peptides
11 <130> FILE REFERENCE: USF-180XC1
C--> 13 <140> CURRENT APPLICATION NUMBER: US/10/526,538
C--> 13 <141> CURRENT FILING DATE: 2005-03-03
13 <150> PRIOR APPLICATION NUMBER: 60/319,530
14 <151> PRIOR FILING DATE: 2002-09-06
16 <150> PRIOR APPLICATION NUMBER: PCT/US2003/028157
17 <151> PRIOR FILING DATE: 2003-09-08
19 <160> NUMBER OF SEQ ID NOS: 21
21 <170> SOFTWARE: PatentIn version 3.2
23 <210> SEQ ID NO: 1
24 <211> LENGTH: 1922
25 <212> TYPE: DNA
26 <213> ORGANISM: Homo sapiens
28 <400> SEQUENCE: 1
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33 ggagatttgc agcaaaggaa gaagcgggag acgggcactt gtctgtgtct ccagcgcggt      180
35 cctgcccccc gccgacccgg cccatttcta tacaaggctc ctctgcccgg tctccacctc      240
37 ccacgtgcag gccgcggagg ggctcattcc cgggccctga tctcagaggc ccggaatgtg      300
39 gctgataaat cagagactag acctgcatgg caggcaggcc cgacactcag ctccaggata      360
41 aaaggccacg gtgtcccag gagccaggag gagcaccctc caggctgagg gcagggtggga      420
43 agcaaaccctg gacgcacatc agcagcagca gcagcagcag aagcagcagc agcagcctcc      480
45 gcagtccctc cagagacatg gatccccaga cagcaccttc ccgggcgctc ctgctcctgc      540
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49 cctcggactt ggaaacgtcc ggggttacag tgagagcgga gggcagctca gggggattgg      660
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71 agggccaagg ggtgcctttg tggaattagt aaatgtgggc ttatttcatt accatgcccc      1320
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79 cccaattttac agatgaggaa actgaggctc agagagttgc attaagcctc aaacgtctga 1560
81 tgactaacag ggtgggtgggt ggcacacgat gaggttaagct cagcccctgc ctccatctcc 1620
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87 ccgcctttga agtgactcat tttttttaat gtatttatgt atttatttga ttgtttata 1800
89 taagatgggt tcttaccttt gagcacaaaa ttccacgggt gaaataaagt caacattata 1860
91 agctttatct tttgaaactg atttgtcttg gcgcattaaa aataatccct catttcaaag 1920
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96 <210> SEQ ID NO: 2

97 <211> LENGTH: 134

98 <212> TYPE: PRT

99 <213> ORGANISM: Homo sapiens

101 <400> SEQUENCE: 2

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108 20 25 30
111 Gly Ser Ala Ser Asp Leu Glu Thr Ser Gly Leu Gln Glu Gln Arg Asn
112 35 40 45
115 His Leu Gln Gly Lys Leu Ser Glu Leu Gln Val Glu Gln Thr Ser Leu
116 50 55 60
119 Glu Pro Leu Gln Glu Ser Pro Arg Pro Thr Gly Val Trp Lys Ser Arg
120 65 70 75 80
123 Glu Val Ala Thr Glu Gly Ile Arg Gly His Arg Lys Met Val Leu Tyr
124 85 90 95
127 Thr Leu Arg Ala Pro Arg Ser Pro Lys Met Val Gln Gly Ser Gly Cys
128 100 105 110
131 Phe Gly Arg Lys Met Asp Arg Ile Ser Ser Ser Ser Gly Leu Gly Cys
132 115 120 125
135 Lys Val Leu Arg Arg His
136 130

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139 <210> SEQ ID NO: 3

140 <211> LENGTH: 845

141 <212> TYPE: DNA

142 <213> ORGANISM: Homo sapiens

144 <400> SEQUENCE: 3

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149 accgtgagct tctcctttt actggcattc cagctcctag gtcagaccag agctaattcc 180
151 atgtacaatg ccgtgtccaa cgcagacctg atggatttca agaatttgct ggaccatttg 240
153 gaagaaaaga tgcttttaga agatgagggtc gtgccccac aagtgtcag tgagccgaat 300
155 gaagaagcgg gggctgctct cagccccctc cctgaggtgc ctccctggac cggggaagtc 360
157 agcccagccc agagagatgg aggtgccctc gggcggggcc cctgggactc ctctgatcga 420
159 tctgccctcc taaaaagcaa gctgagggcg ctgctcactg cccctcggag cctgcgggaga 480
161 tccagctgct tcgggggacag gatggacagg attggagccc agagcggact gggctgtaac 540
163 agcttccggg actgaagata acagccaggg aggacaagca gggctggggc tagggacaga 600
165 ctgcaagagg ctctgtcccc ctgggggtctc tgctgcattt gtgtcatctt gttgccatgg 660

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167 agttgtgata atcccatcta agctgcagct tctgtcaac acttctcaca tcttatgcta 720
169 actgtagata aagtggtttg atggtgactt cctcgctct cccaccccat gcattaaatt 780
171 ttaaggtaga acctcacctg ttactgaaag tggtttgaaa gtgaataaac ttcagcacca 840
173 tggac 845

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176 <210> SEQ ID NO: 4

177 <211> LENGTH: 151

178 <212> TYPE: PRT

179 <213> ORGANISM: Homo sapiens

181 <400> SEQUENCE: 4

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184 1 5 10 15

187 Phe Gln Leu Leu Gly Gln Thr Arg Ala Asn Pro Met Tyr Asn Ala Val

188 20 25 30

191 Ser Asn Ala Asp Leu Met Asp Phe Lys Asn Leu Leu Asp His Leu Glu

192 35 40 45

195 Glu Lys Met Pro Leu Glu Asp Glu Val Val Pro Pro Gln Val Leu Ser

196 50 55 60

199 Glu Pro Asn Glu Glu Ala Gly Ala Ala Leu Ser Pro Leu Pro Glu Val

200 65 70 75 80

203 Pro Pro Trp Thr Gly Glu Val Ser Pro Ala Gln Arg Asp Gly Gly Ala

204 85 90 95

207 Leu Gly Arg Gly Pro Trp Asp Ser Ser Asp Arg Ser Ala Leu Leu Lys

208 100 105 110

211 Ser Lys Leu Arg Ala Leu Leu Thr Ala Pro Arg Ser Leu Arg Arg Ser

212 115 120 125

215 Ser Cys Phe Gly Gly Arg Met Asp Arg Ile Gly Ala Gln Ser Gly Leu

216 130 135 140

219 Gly Cys Asn Ser Phe Arg Tyr

220 145 150

223 <210> SEQ ID NO: 5

224 <211> LENGTH: 1803

225 <212> TYPE: DNA

226 <213> ORGANISM: Canis sp.

228 <400> SEQUENCE: 5

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231 actgttggtg tccccctcct gcccttttgg ggccaggccc acttctatac aaggcctgct 120

233 ctccagcctc caccgccggc ggtatggtgc aggcgcggag gggcgcatc ccccgccctg 180

235 agctcagcgg ccggaatgcg gccgataaat cagagataac ccaggcgcg ggataaggga 240

237 taaaaagccc ccgttgccgc gggatccagg agagcaccgc cgccccaagc ggtgacactc 300

239 gaccccggtc gcagcgcagc agctcagcag ccggacgtct ctttccccac ttctctccag 360

241 cgacatggag ccctgcgcag cgctgccccg ggccctcctg ctctcctgt tcttgcaact 420

243 gtcgccactc ggaggccgcc cccaccgcgt gggcgccgc agcccgccct cggaagcctc 480

245 ggaagcctca gaagcctcgg ggttgtgggc cgtgcagggt agcgtcagc ctgctgaag 540

247 gccgcggcgg gtggcagcag gtcacggggg cttagccact gtcccaagtc ctcagtctcc 600

249 cttgggaatt agtgataagg gaatcagaaa gtgacgagat tgggtgccag gactccatac 660

251 ccaaggcggc ggcttcactt ggggtgcaagg gtggttccgc cccggcggtg gttcctgagg 720

253 ctcaggccgt ccattgcagg agctgctggg ccgtctgaag gacgcagttt cagagctgca 780

255 ggcagagcag ttggccctgg aaccctgca ccggagccac agcccgcgag aagccccgga 840

257 ggccggagga acgccccgtg gggctcctgc accccatgac agtgtcctcc aggcctgag 900

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259 aagactacgc agccccaaga tgatgcacaa gtcaggggtgc tttggccgga ggctggaccg      960
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263 cccctcccca gccccctggg ttcgaccctt ggaacccctt ctgggtttgt tgtctcgggg      1080
265 gatcacactc tgaggaaagg acatctggac atcgctcctt cttgctgaca gtcctaaggg      1140
267 ccaaggagta cgtttctgga aatactacgt gtggacatcg ttgtccaggg tccctaccca      1200
269 cctcctagcc ccctcctgcc tctcgacccc aagggcagaa tcatcttagg atggaatcag      1260
271 tcgttgtctg gaagcatctc cttggagcag aaagagtcct aaacatcgtc ctcgtagctc      1320
273 tctctgtctg tctgtagcca cgaaggcaga ggtcaggggc accagggcag tgatgattcc      1380
275 cagttaacag aggaggagac tgaggtctag agagatggat tattccaaag cctcaaacad      1440
277 ccagatcggc tgaggggtggg gttggtggca gggatggctc ctgggcttgg gaagctcgga      1500
279 tctgacctca gtctcccacc tgacgccatc atccccctct ctctcctccc acagtgtctga      1560
281 gaaagtatta aggaggaagt cccgactgcc cacatctgca ttggattctt cagcagcccc      1620
283 tgagccccctt ggaagcagat cttattttatt cgtattttatt tttttattta tttcgattgt      1680
285 tttatataag atgatcctga cgcccgagca cggattttcc acggtgaaat aaagtcaacc      1740
287 ttagagcttc ttttgaaacc gattttgtccc tgtgcattaa aagtaacaca tcatttaaaa      1800
289 aaa                                                                                   1803

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292 <210> SEQ ID NO: 6

293 <211> LENGTH: 140

294 <212> TYPE: PRT

295 <213> ORGANISM: Canis sp.

297 <400> SEQUENCE: 6

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304                20                    25                    30
307 Ser Pro Ala Ser Glu Ala Ser Glu Ala Ser Glu Ala Ser Gly Leu Trp
308                35                    40                    45
311 Ala Val Gln Glu Leu Leu Gly Arg Leu Lys Asp Ala Val Ser Glu Leu
312                50                    55                    60
315 Gln Ala Glu Gln Leu Ala Leu Glu Pro Leu His Arg Ser His Ser Pro
316 65                70                75                80
319 Ala Glu Ala Pro Glu Ala Gly Gly Thr Pro Arg Gly Val Leu Ala Pro
320                85                90                95
323 His Asp Ser Val Leu Gln Ala Leu Arg Arg Leu Arg Ser Pro Lys Met
324                100               105               110
327 Met His Lys Ser Gly Cys Phe Gly Arg Arg Leu Asp Arg Ile Gly Ser
328                115               120               125
331 Leu Ser Gly Leu Gly Cys Asn Val Leu Arg Lys Tyr
332                130               135               140

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335 <210> SEQ ID NO: 7

336 <211> LENGTH: 15

337 <212> TYPE: DNA

338 <213> ORGANISM: Homo sapiens

340 <400> SEQUENCE: 7

341 cgctgctcct gtaac

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344 <210> SEQ ID NO: 8

345 <211> LENGTH: 19

346 <212> TYPE: DNA

347 <213> ORGANISM: Homo sapiens

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353 <210> SEQ ID NO: 9
354 <211> LENGTH: 19
355 <212> TYPE: DNA
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364 <212> TYPE: DNA
365 <213> ORGANISM: Homo sapiens
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372 tccgggttac aggagcagcg caaccatttg cagggcaaac tgtcggagct gcaggtggag 180
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378 ccacgaagcc ccaagatggt gcaagggctc ggctgctttg ggaggaagat ggaccggatc 360
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384 <211> LENGTH: 456
385 <212> TYPE: DNA
386 <213> ORGANISM: Homo sapiens
388 <400> SEQUENCE: 11
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393 aagaatttgc tggaccattt ggaagaaaag atgcctttag aagatgaggt cgtgccccca 180
395 caagtgtctc gtgagccgaa tgaagaagcg ggggctgctc tcagccccct ccctgaggtg 240
397 cctccctgga ccgggggaagt cagcccagcc cagagagatg gaggtgccct cgggcggggc 300
399 ccctgggact cctctgatcg atctgccctc ctaaaaagca agctgagggc gctgctcact 360
401 gcccctcgga gcctgcggag atccagctgc ttccggggga ggatggacag gattggagcc 420
403 cagagcggac tgggtgtaa cagcttccgg tactga 456
406 <210> SEQ ID NO: 12
407 <211> LENGTH: 1432
408 <212> TYPE: DNA
409 <213> ORGANISM: Mus musculus
411 <400> SEQUENCE: 12
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416 ccgttggtga agacaccagt gcacaagctg cttggggagg cgagacaagg gagaacacgg 180
418 catcattgcc tggcccatcg cttctgcggc atggatctcc tgaaggtgct gtcccagatg 240
420 attctgtttc tgcttttctt ttatctgtca ccgctgggag gtcactccca tcctctggga 300
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430 agctgataag agaaaagtca gagggaaatg cccagagaca gctcttgaag gaccaaggcc 600
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VERIFICATION SUMMARY

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L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date